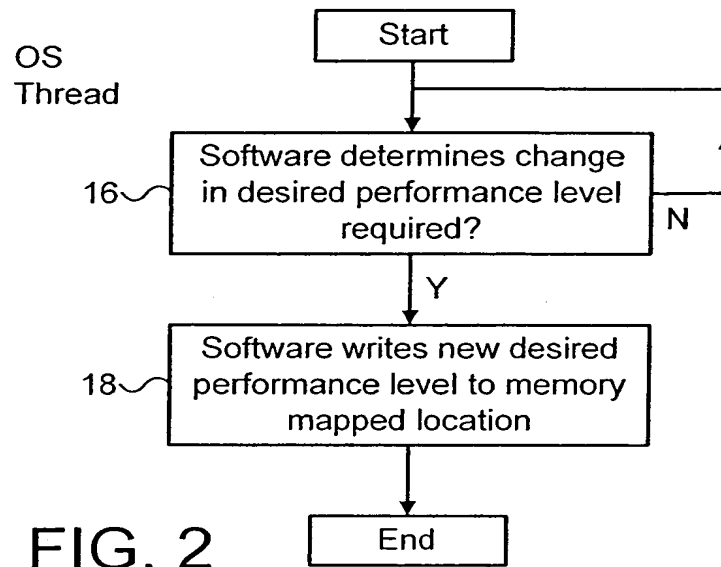


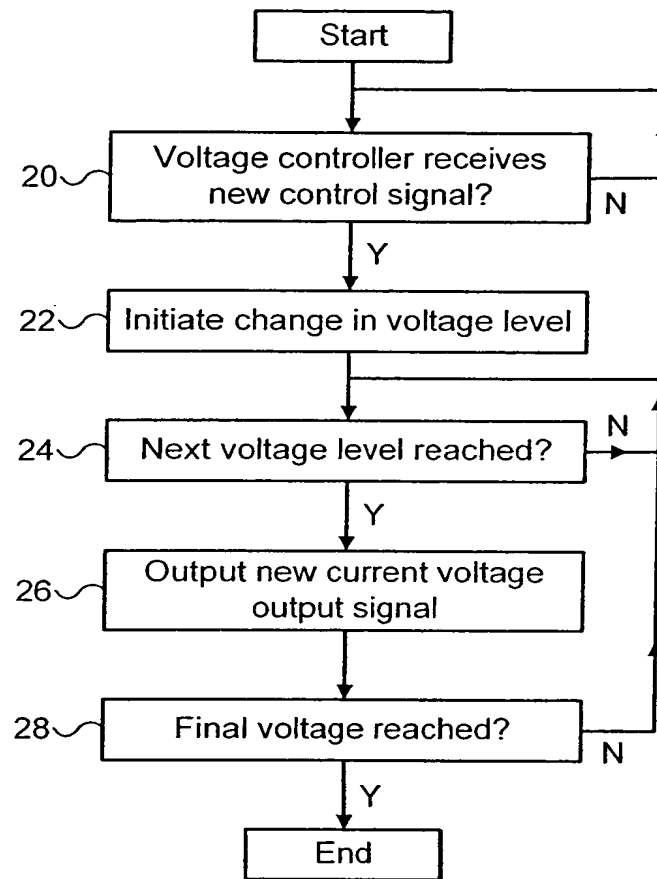
FIG. 1



<u>Desired performance 6-bit</u>	<u>Control signal value</u>
0	00000000 Idle
1-4	00000001
5-8	00000011
9-12	00000111
13-16	00001111
17-20	00011111
21-24	00111111
25-28	01111111
29-32	11111111

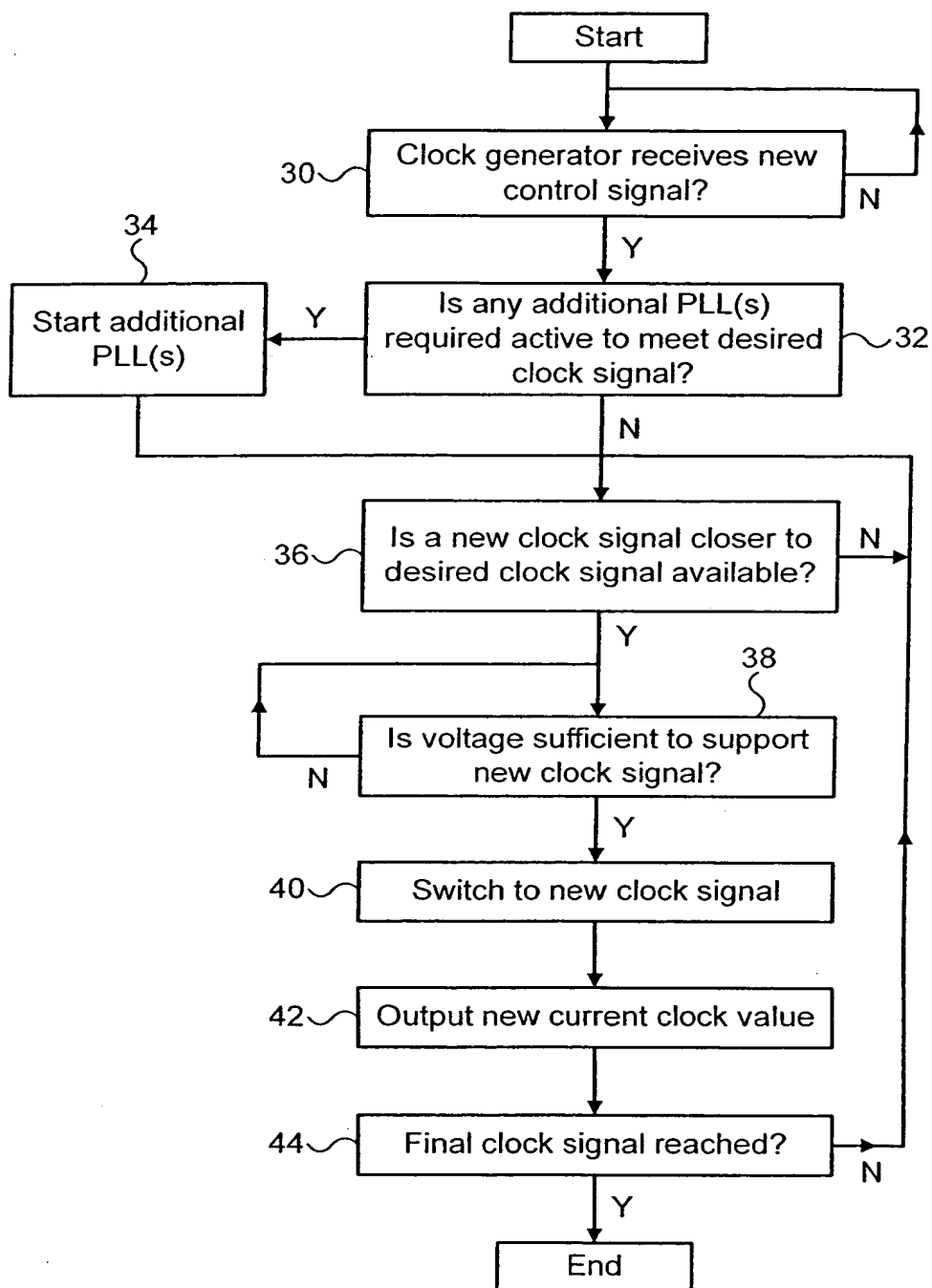
Example mapping

FIG. 3



Voltage controller

FIG. 4



CPU clock generator

FIG. 5

Perf/32	Binary	Fractional	%	Coding	Note
32	1.00000	1.00000	100.0%	11111111111111111111111111111111	MAX
31	0.11111	0.96875	96.9%	01111111111111111111111111111111	
30	0.11110	0.93750	93.8%	00111111111111111111111111111111	
29	0.11101	0.90625	90.6%	00011111111111111111111111111111	
28	0.11100	0.87500	87.5%	00001111111111111111111111111111	
27	0.11011	0.84375	84.4%	00000111111111111111111111111111	
26	0.11010	0.81250	81.3%	00000011111111111111111111111111	
25	0.11001	0.78125	78.1%	00000001111111111111111111111111	
24	0.11000	0.75000	75.0%	00000000111111111111111111111111	
23	0.10111	0.71875	71.9%	00000000011111111111111111111111	
22	0.10110	0.68750	68.8%	00000000001111111111111111111111	
21	0.10101	0.65625	65.6%	00000000000111111111111111111111	
20	0.10100	0.62500	62.5%	00000000000011111111111111111111	
19	0.10011	0.59375	59.4%	00000000000001111111111111111111	
18	0.10010	0.56250	56.3%	00000000000000111111111111111111	
17	0.10001	0.53125	53.1%	00000000000000011111111111111111	
16	0.10000	0.50000	50.0%	00000000000000001111111111111111	
15	0.01111	0.46875	46.9%	00000000000000000111111111111111	
14	0.01110	0.43750	43.8%	00000000000000000011111111111111	
13	0.01101	0.40625	40.6%	00000000000000000001111111111111	
12	0.01100	0.37500	37.5%	00000000000000000000111111111111	
11	0.01011	0.34375	34.4%	00000000000000000000011111111111	
10	0.01010	0.31250	31.3%	00000000000000000000001111111111	
9	0.01001	0.28125	28.1%	00000000000000000000000111111111	
8	0.01000	0.25000	25.0%	00000000000000000000000011111111	
7	0.00111	0.21875	21.9%	00000000000000000000000001111111	
6	0.00110	0.18750	18.8%	00000000000000000000000000111111	
5	0.00101	0.15625	15.6%	00000000000000000000000000011111	
4	0.00100	0.12500	12.5%	00000000000000000000000000001111	
3	0.00011	0.09375	9.4%	00000000000000000000000000000111	
2	0.00010	0.06250	6.3%	00000000000000000000000000000011	
1	0.00001	0.03125	3.1%	00000000000000000000000000000001	
0	0.00000	0.00000	0.0%	00000000000000000000000000000000	IDLE

FIG. 7

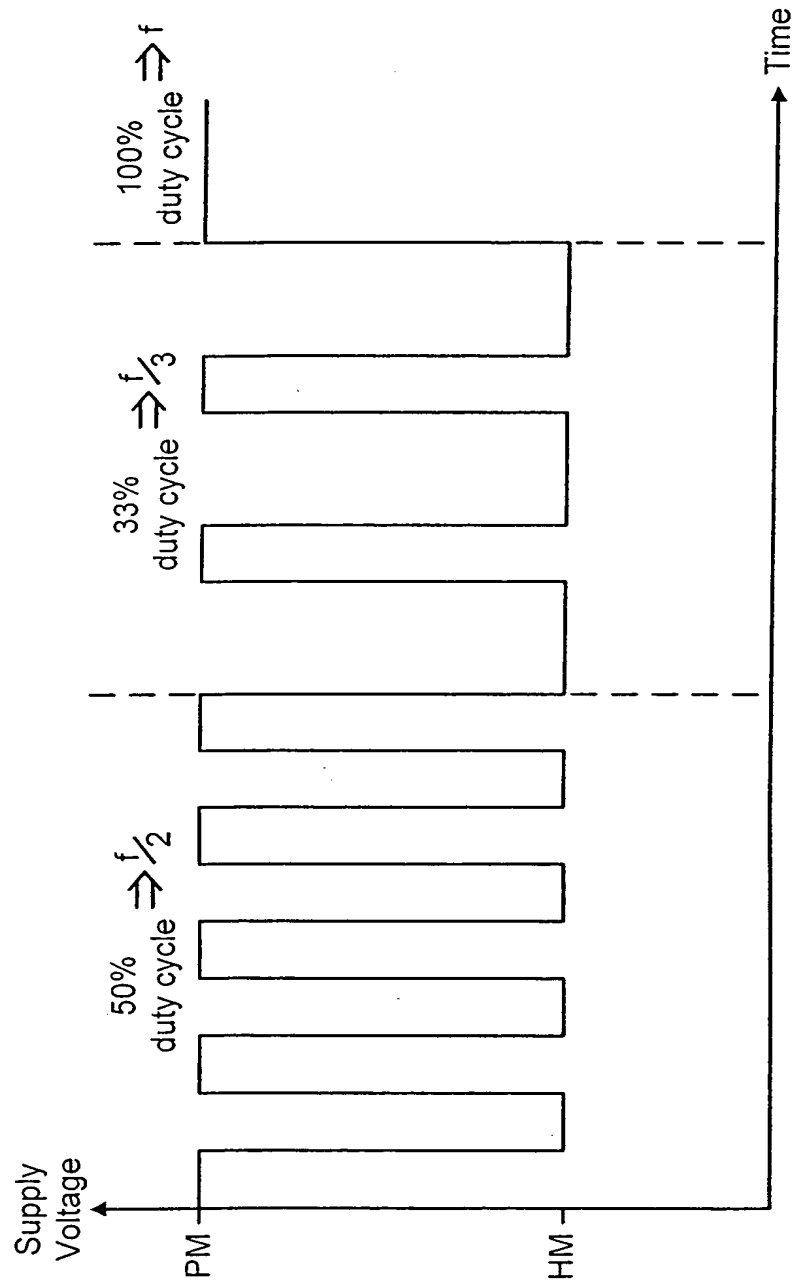
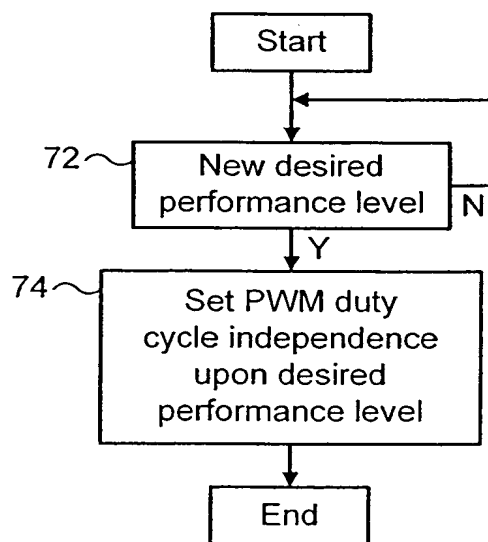
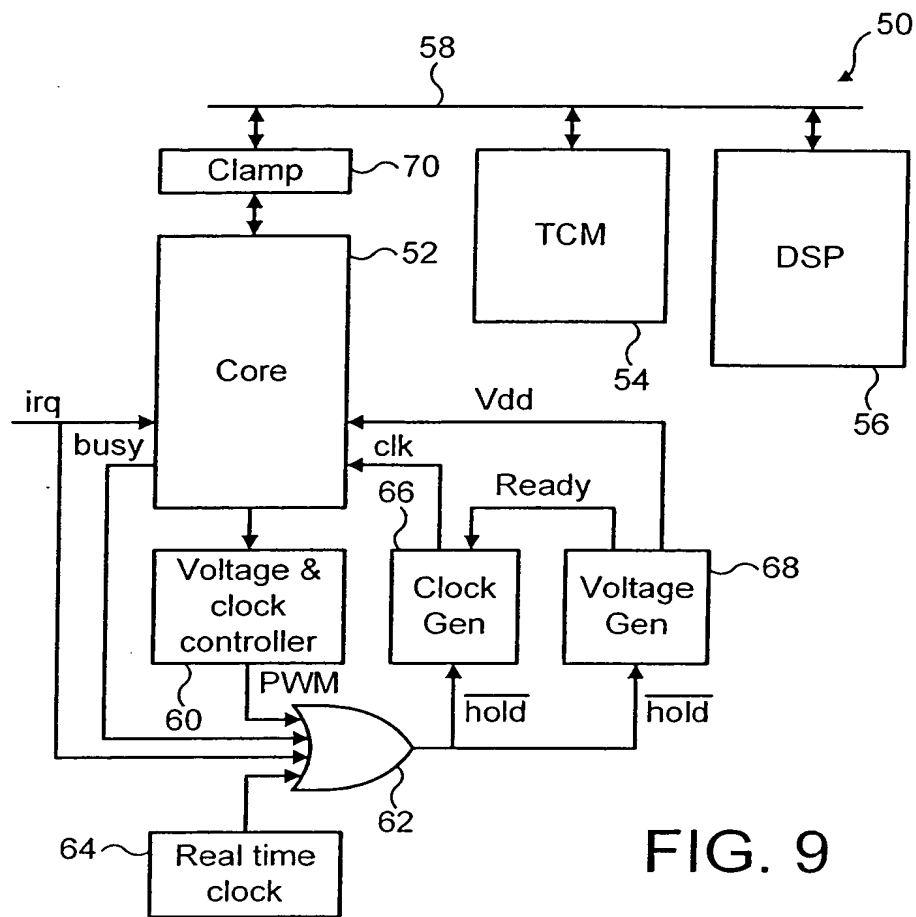


FIG. 8



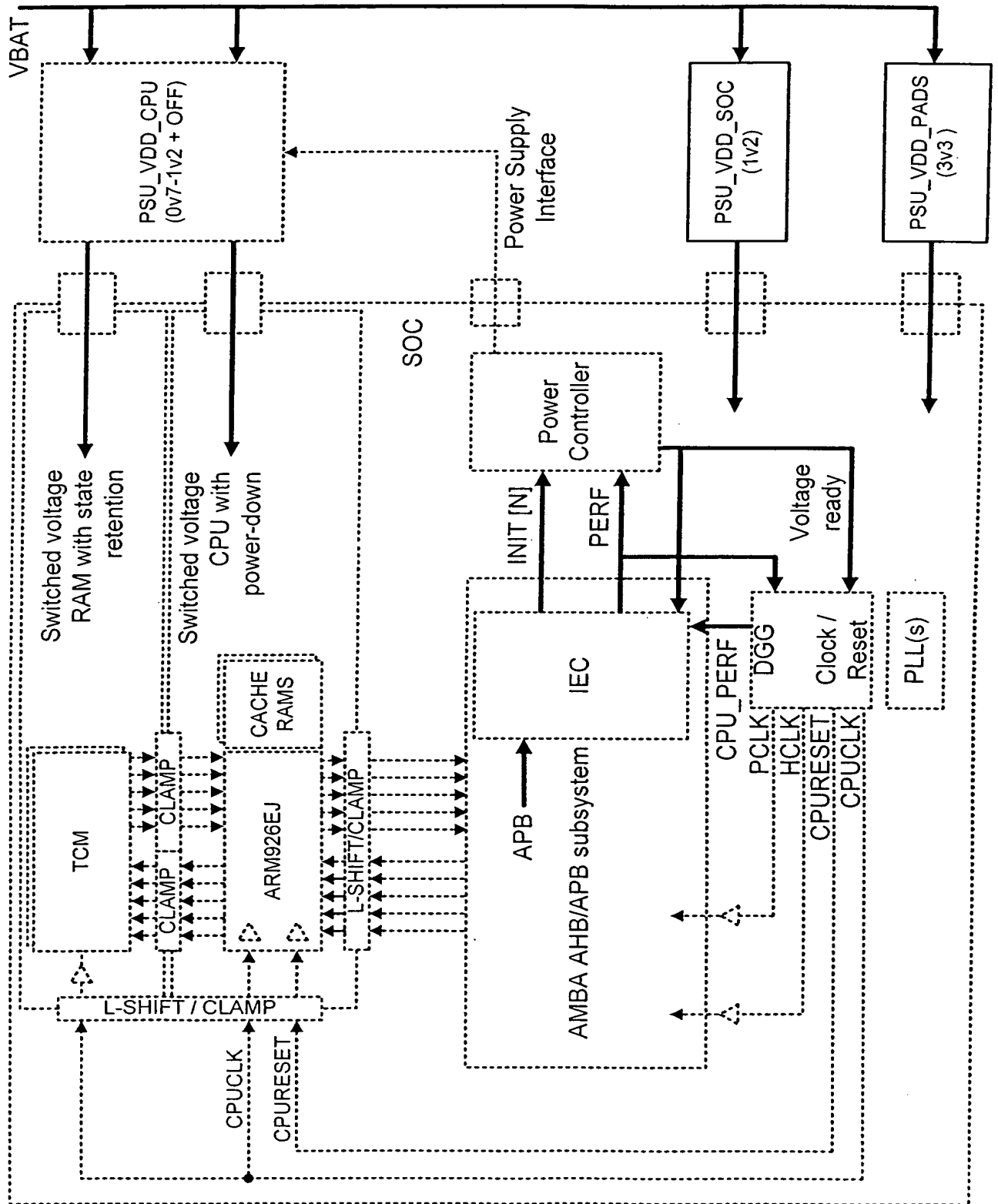


FIG. 11

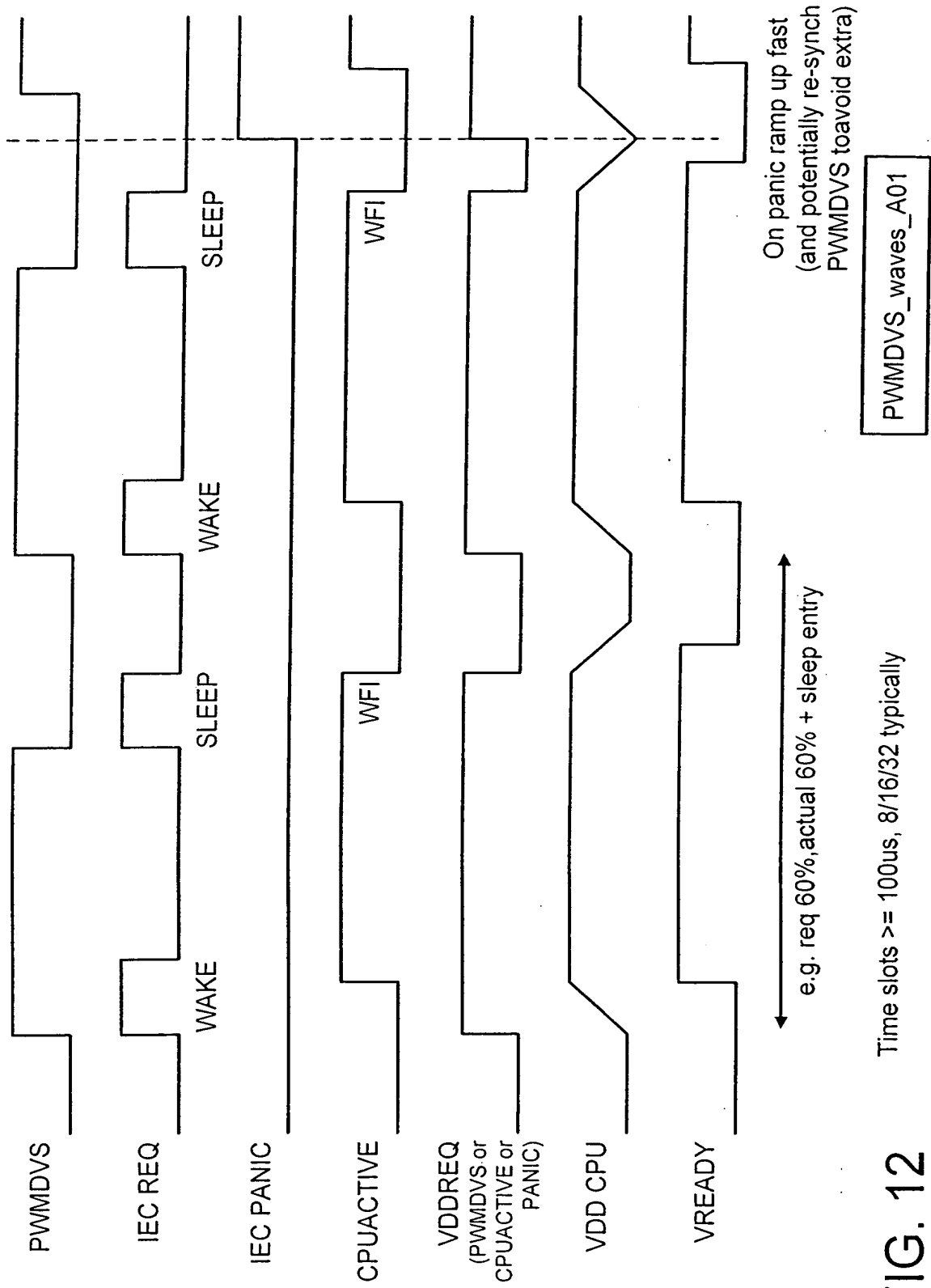


FIG. 12